

## SHORT COMMUNICATION

### THE IDENTITY OF *CENTRUROIDES ELEGANS EDENTULUS* (SCORPIONES, BUTHIDAE)

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**ABSTRACT.** A lectotype is designated for *Centruroides elegans edentulus* Werner 1939, originally described from Cuernavaca, Morelos, Mexico. It is declared a junior synonym of *Centruroides limpidus* (Karsch 1879).

**Keywords:** Cuernavaca, Morelos, Mexico, lectotype, *limpidus*

The scorpion *Centruroides elegans edentulus* Werner 1939 was originally described on the basis of three “paratypes” collected in Cuernavaca, Estado de Morelos, México (Werner 1939), and has remained neglected and ignored ever since. It is not mentioned by Stahnke & Calos (1977) in their key to the species in the genus, or by Beutelspacher (2000) in a catalog of the scorpions of México. A recent thorough survey of the scorpions of Morelos by the senior author (Córdova-Athanasiadis 2005) failed to reveal the presence of the species in that state, prompting us to examine the types and ascertain the taxonomic status of the subspecies.

The original description of *C. elegans edentulus* is very brief (only six lines long) and not very informative: from the name chosen by Werner we guessed that the taxon lacks a subaculear spine or tooth (“edentulus” means toothless), a very variable character in the genus *Centruroides* Marx 1890; and since it was compared to *Centruroides pallidiceps* Pocock 1902, we expected a “non-striped” or uniformly pale colored taxon.

*Centruroides elegans* (Thorell 1876) occurs on the western slopes of the Sierra Madre Occidental, from Oaxaca north to Nayarit and southern Sinaloa (Beutelspacher 2000; Fet et al. 2000): it is a “striped” species recognized by having dark coloration (spots) submedially on the pre-tergites and unmarked post-tergites, and generally has a well-developed subaculear spine. *Centruroides limpidus limpidus* (Karsch 1879) is found in the Balsas River basin, between the eastern slopes of the Sierra Madre Occidental and south of the Sierra Madre Transversal (Beutelspacher 2000; Fet et al. 2000): it is

also a “striped” species with intense submedian dark spots covering both the pre- and post-tergites, and its subaculear spine is usually vestigial (Hoffmann 1932).

The three paratypes of *C. elegans edentulus* are deposited at the Zoologisches Institut und Museum, Hamburg Universität, Germany, and we recently examined them while they were on loan to the American Museum of Natural History, New York. One specimen, although immersed in alcohol, had been previously dried so it is totally discolored, and is missing the entire metasoma and is therefore taxonomically worthless. A second specimen is an adult male in good condition and is hereby designated the lectotype of the subspecies: the carapace is 5.6 mm long and has four fuscous longitudinal stripes—the submedians are somewhat faded with time, and the laterals are irregular and underlie large granules; the color on the tergites is also faded, with very diffuse markings on the anterior margins and faint markings medially and posteriorly; the pectinal tooth count is 25–26; the subaculear spine is vestigial, represented by a very small granule. The third specimen is an adult female hereby designated a paralectotype: the carapace is 5.9 mm long and has four distinct longitudinal fuscous lines (more clearly defined than on the lectotype); tergites I–IV have anterior and posterior spots well defined, and on V–VII the anterior spot is well defined and the posterior spot is diffuse but clearly present; the basal pectinal plate has a small central indentation, and the pectinal tooth count is 23–24; the subaculear spine is vestigial to obsolete, its presence indicated by a small bump.

We could find no differences between the lectotype and paralectotype of *C. elegans edentulus* and samples of *C. limpidus limpidus* from Cuernavaca and other nearby localities in Morelos; therefore, we propose that the former is a junior synonym of the latter. We have examined 1189 specimens of the genus *Centruroides* from 82 localities in Morelos, and aside from an introduced population of *Centruroides margaritatus* (Gervais 1841) in the city of Cuernavaca, they all represent either *C. limpidus limpidus* or *C. balsasensis* Ponce & Francke. In our opinion, published records of *C. elegans* from Morelos (Beutelspacher 2000) are based on misidentifications of *C. limpidus*.

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